

Creating Vegetated Buffers



A guide for property owners who want to help improve water quality and beautify their land

City of Gloucester
Conservation Commission
22 Poplar Street
Gloucester, MA 01930

978-281-9781
www.ci.gloucester.ma.us

What is a vegetated buffer?

Vegetated buffers are "living filters" made up of trees, shrubs, grasses and flowers. They act as a protective space between a body of water and human activities such as development and agricultural uses. The buffer physically filters pollutants such as runoff from roads and animal waste. Sediments are filtered by slowing down the velocity of stormwater runoff. Vegetated buffers help keep rivers and streams clean and functional as wildlife habitats.

Why is sediment a problem?

Sediment is a major conveyance of pollutants such as nutrients, bacteria, pathogens and metals. Sediment, transported by stormwater, can build up in rivers and stream which lowers the capacity for storing water. This can lead to flooding problems. Sediment also scours banks which causes erosion and more sediment to accumulate in the water column. In addition, wildlife habit and developing eggs are smothered by sediment.

What can a buffer do for my yard?

Creating a vegetated buffer allows for better infiltration of water which can decrease minor flooding problems. Pollutants will be filtered through the soil and root systems of plants. You will be able to maintain a more consistent water level and temperature through groundwater recharge. You may find you are able to observe more birds and other wildlife that will find your yard a welcome place teeming with food sources and hiding places. And last but not least, your yard will look better, too.



This graphic illustrates how runoff pollutes our wetland resources. Imagine the rainwater that flows off the house picking up chemical pesticides, herbicides and pet waste from the lawn. The water then flows across the driveway where oil or coolant may have leaked from the car. This contaminated water then flows into the wetland area, carrying sand or soil with it. A more protective vegetated buffer than just the sparse grasses would help protect the stream.

What should I plant?

The following planting suggestions are readily available at various garden centers around Massachusetts. In addition, many of the plants have been shown to be of moderate to high wildlife value. A combination of trees, shrubs, grasses and flowers will create the most effective buffer. Additional information is available in the Conservation office. Please call in advance to view these materials.

Trees

Red Maple
White Birch
Flowering Dogwood
American Beech
American Holly
Black Cherry
Chokecherry
White Oak
Red or Black Oak
Hop Hornbeam

Grasses

Creeping Bent Grass
American Beach Grass
Silky Wild-Rye
Deertongue
Switchgrass
Indiangrass
Sand Dropseed
Shelter Switchgrass
Red Top

Shrubs

Shadbush
Red or Black Chokecherry
Buttonbush
White Fringe Tree
Sweet Pepper Bush
Inkberry
Winterberry Holly
Juniper
High Bush Blueberry
American Cranberry bush

Wildflowers

Boneset
Grass-leaved Goldenrod
Blue Vervain
Annual Sunflower
Common or Butterfly Milkweed
Calico, Flat-top or New England Aster
Beard Tongue
Bush Clover
Wild Blue Lupine